Applicant respectfully requests reconsideration and allowance of the subject Application. Support for the foregoing amendments can be found in the original specification, claims or drawings – no new matter has been introduced. Accordingly, Claims 1-14 are pending as listed above.

35 U.S.C. § 102 Claim Rejection

Independent Claim 12 stands rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,510,153 issued to Inoue et al. (hereinafter, Inoue) Applicant respectfully traverses the rejection.

35 U.S.C. § 103 Claim Rejection

Claims 1-11, 13 and 14 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,510,153 issued to Inoue et al. (hereinafter, Inoue) in view of U.S. Patent No. 6,707,809 issued to Warrier et al. (hereinafter, Warrier) Applicant respectfully traverses the rejection.

About the Claimed Invention

The claimed invention is directed to a method enabling a portable and/or mobile host, using standard Mobile IP protocol, to dynamically acquire a home address from DHCP servers in the home network of the mobile host, in a manner consistent with Dynamic Host Configuration Protocol upon powering up in a foreign network.

Ordinarily, mobile hosts that power up in a foreign network cannot contact addressing servers in their home network. Dynamic home addressing, as

required when a mobile host powers up in a foreign network, is not specified in the Mobile-IP standard. Therefore, a mobile host that powers up in a foreign network with no home address cannot contact addressing servers in its home network through conventional DHCP broadcasting. Any upstream broadcast messages sent from the mobile host to the home network will be received by a local server or relay in the foreign network, which may offer an address from its own lease pool, but not that the host's home network.

The present claimed invention provides for a solution to this problem using transient tunneling – a novel two-stage addressing procedure for mobile hosts that power up in a foreign network. A bootstrapping agent – an addressing element that is co-located with a Mobile-IP home agent – facilitates the creation of the temporary tunnel over which standard DHCP transactions can take place. The method allows the mobile host to contact addressing servers in its home network, even as it powers up in a foreign network. The mobile host maintains individual DHCP proxy clients, thereby relieving the home agent of this burden.

References

The Office cites Inoue in the § 102 rejection and the combination of Inoue and Warrier in the § 103 rejection.

Inoue teaches a mobile IP communications scheme that manages a changing address of a mobile computer moving on a network and routing communication content to the mobile accordingly. Inoue teaches using a visited site or nearby network of a mobile computer as a temporal home network of a mobile computer. (Inoue, Abstract) Inoue does not teach a home network that is the actual network to which the client is normally connected in a client-server relationship.

Inoue does not teach an addressing client that rests on the mobile host, rather Inoue teaches a home agent that maintains addressing sessions. The home agent taught by Inoue functions as a "mobile computer management device" that actively maintains dynamic addressing from an addressing proxy client.

While Inoue teaches mobile IP communications, Inoue requires modification to the mobile IP standard. Thus it is not possible to deploy the invention taught by Inoue using standard home agent equipment.

Warrier discloses a method for forwarding data from a source of the data to a mobile wireless node that undergoes a transition to an idle state. (Abstract) Warrier teaches a mobility binding record (MBR) that is maintained by the foreign agent if the mobile node is connected, or by the home agent for currently registered and active mobile nodes. (Col. 6, lines 43-44) The MBR maintains certain identifying information, such as home agent IP address, foreign agent care of address, serial number or IMSI number. The MBR associates nodes in a database with the last foreign agent to which the mobile node was connected. (Col. 3, lines 65-67)

Warrier does not teach a bootstrapping agent that temporarily assigns an IP address upon power up in a foreign network. Warrier teaches merely a listing of previous address registrations of mobile nodes. Warrier does not teach using a mobile device to establish a connection to a DHCP server for dynamic addressing as it powers up in a network other than the home network and does not provide for a means to establish a connection to the home DHCP server using mobile IP protocol.

Warrier does not teach transient tunneling between a mobile host and a DHCP server in the home network of the mobile host as the host powers up in a foreign network. Warrier teaches "tunneling of data" using "known Mobile IP tunneling techniques" (Warrier, Col. 4, lines 39-43). However, the tunnel is not a conduit to a DHCP server as taught by the present claimed invention.

Claim Analysis For § 102(e) Rejection

The Office cites Inoue in its §102 rejection of Independent Claim 12. Inoue is concerned with routing communication to a mobile computer by managing a changing address of a mobile computer as it moves on a network. (Inoue, Col. 1, lines 44-48) There are significant differences between Applicant's claimed invention and Inoue that overcome the rejection by Office.

> Independent Claim 12 recites:
>> a method for configuring said portable and/or mobile host when it powers up in said foreign network, said method comprising the steps of using the Mobile IP protocol in said portable and/or mobile host as the signaling mechanism for reaching said home network and dynamically allocating a temporary home address; and thereafter using DHCP with the temporary home address to allocate a permanent home address and other configuration state for said portable and/or mobile host.

Applicant respectfully asserts that Inoue does not teach several important aspects of the present claimed invention and does not anticipate Applicant's Independent Claim 12.

Firstly, Inoue does not teach a method for configuring a mobile host *when it powers up in a foreign network*. Inoue discloses a mobile device that is powered and operating as it moves from one network to the other. (Inoue, Col. 3, lines 33-40) Inoue manages a changing address of a mobile computer already

connected *on a network.* (Inoue, Col. 1, lines 44-48) This is clearly different from a mobile device that is powering up in a foreign network without a home address, as taught by Applicant.

Secondly, Inoue does not teach using the mobile host *as the signaling mechanism for reaching the home network .... and dynamically allocating a permanent home address for the mobile host.* Inoue teaches a *temporal* home network that is a <u>visited site network</u> or a <u>nearby network</u>. (Inoue, Col. 3, lines 35-40) Applicant teaches a home network that is the *permanent home network* for the mobile host; the point of attachment for the client-server relationship and where the mobile device has its permanent IP address. Furthermore, Inoue does not teach the home DHCP server to dynamically assign the permanent home address of the home network to the mobile host. Inoue teaches DHCP <u>from the visited site network</u>, which is clearly different from dynamically allocating a permanent home address from the DHCP server of the home network, as taught by Applicant. (See Inoue, Col. 15, lines 55-56)

In view of the foregoing, Applicant respectfully asserts that Inoue does not teach each and every element of the present claimed invention and thus Inoue does not anticipate Applicant's Independent Claim 12.

For at least the reasons set forth above, Applicants respectfully asserts that the rejection of Independent Claim 12 under 35 U.S.C. § 102(e) is overcome and the rejection should be withdrawn.

Claim Analysis For § 103 Rejection

Independent Claims 1, 9, 10, 13 & 14

Independent Claim 1 recites a method that allows a mobile host to power up in a foreign network, using mobile IP protocol, and to contact addressing

servers in the home network – through transient tunneling – to dynamically acquire a permanent home address. Transient tunneling is carried out by a bootstrapping agent that "works cooperatively with a mobile IP home agent to allocate a temporary home address to a mobile host" and using the temporary home address to "create a temporary tunnel between a foreign agent associated with the portable and/or mobile host and the mobile IP home agent, wherein the tunnel is used to communicate configuration information including a permanent home address allocated by a DHCP protocol".

The cited references do not teach or suggest this method, and the resulting combination is not the present claimed invention.

As stated above in the analysis of Independent Claim 12, Inoue does not teach a mobile host that is powering up in a foreign network, which is an important limitation of Independent Claims 1, 9, 10, 13 & 14. Inoue fails to teach this limitation and instead teaches a mobile computer that is *connected* and *moving on a network*. (Inoue, Col. 1, lines 44-48)

Nor does Inoue teach dynamically acquiring a permanent home address by DHCP servers in the home network, as taught by the present claimed invention. Inoue teaches using a *visited site* or a *nearby network* to create a temporal home network for IP addressing; this is not the permanent home network as taught by Applicant. (Inoue, Col. 3, lines 35-40)

Furthermore, Inoue teaches the use of a home agent requiring modification to the Mobile IP standard. Inoue teaches a Q bit that is not standard in Mobile IP (see Figs 8, 9, 10 and 12). Thus, while Applicants' claimed invention could be deployed using equipment manufactured by any standard-complaint manufacturer – these same standards would not recognize the Q bit taught by

Inoue. As such, it is not possible to deploy the method of Inoue using standard (meaning those set by the IETF and recognized by those skilled in the art) home agent equipment.

Thus, Applicant respectfully asserts that Inoue does not teach or suggest the method of Independent Claim 1. Because Inoue fails to teach the limitations of Independent Claim 1, there is no motivation or suggestion to combine the teachings of Inoue with the teachings of Warrier.

Contrary to the statement by Office, Applicant respectfully asserts that Warrier does not teach or suggest creating a "bootstrapping agent that works cooperatively with a mobile IP home agent to allocate a temporary home address to the host;" and "using the temporary home address to create a temporary tunnel between a foreign agent associated with the host and the mobile IP home agent, wherein the temporary tunnel is used to communicate configuration information including a permanent home address allocated by DHCP protocol" as recited in Independent Claim 1.

Warrier does **not** teach transient tunneling between a mobile host and a DHCP server in the home network as the host powers up in a foreign network. Warrier teaches "tunneling data " using "known mobile IP tunneling techniques". (Warrier, Col. 4, lines 39-43) Warrier teaches re-establishing a connection between a foreign agent and a mobile node by paging. When the mobile node responds to the page it re-establishes a connection by registration – it dials in to the foreign network, meaning the mobile node changes from idle to active. The mobile node may then receive *data* from the home agent using known mobile IP tunneling techniques, but **cannot** dynamically acquire a permanent home address through DHCP protocol. (Col. 4, lines 39-43) Therefore, tunneling

described by Warrier, is merely packet "readdressing" and not a conduit for dynamic addressing protocol between a mobile host outside of a home network and a DHCP server in the home network of the mobile host, as taught by the present claimed invention.

Warrier also fails to teach a bootstrapping agent. Rather, Warrier teaches a mobility binding record (MBR) that maintains certain identifying information in the form of a table or list, but does not provide for dynamic addressing of a permanent IP address of the home network. (Col. 6, lines 43-47) Thus, the MBR is not an addressing element as taught by the present claimed invention. The MBR, rather, lists the mobile node's IP address, the IP address of the foreign agent, the IMSI number, ESN number and lifetime values in tabular form. (Col. 6, lines 43-47)

Applicant respectfully maintains that the cited references do not teach or suggest the method of the present claimed invention, and as such there is no motivation to combine the references. Even if the references were combined, a combination of Inoue and Warrier does not teach the present claimed invention. The Inoue/Warrier combination will **not** provide for a method that allows a mobile host powering up in a foreign network to dynamically acquire a permanent IP address of the home network from DHCP servers in the home network, as taught by Applicant. Moreover, because the method of Inoue requires modification to standard home agent equipment, it teaches away from the present claimed invention, which uses standard-complaint equipment that does not require modification to the Mobile IP standard.

Accordingly, there would be no motivation to combine the teachings of Inoue and Warrier, as they fail to teach or suggest Independent Claim 1.

Applicant respectfully requests that the §103(a) rejection of Independent Claim 1 be withdrawn.

As the same argument applies to the interpretation of Independent Claims 9, 10, 13 and 14, for the same reasons, Applicant respectfully requests that the §103(a) rejection be withdrawn as to those claims.
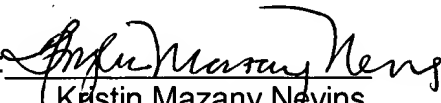
Claims 2-8 depend from Claim 1 and are allowable by virtue of this dependency. Additionally, these claims recite additional features that, when taken together with those of Independent Claim 1, define methods that are not taught or suggested by the Inoue/Warrier combination.

Conclusion

In view of the foregoing amendments and remarks, Applicant submits that claims 1-14 are in condition for allowance. Applicant respectfully requests reconsideration and issuance of the subject application. If any issues remain that preclude issuance of this application, the Office is urged to contact the undersigned attorney before issuing a subsequent Action.

Respectfully Submitted,
WERNER & AXENFELD, PC

Dated: 4/11/2006

By: Kristin Mazany Nevins
(Kristin Mazany Nevins
Reg. No. 56,775

P.O. Box 1629
West Chester, PA 19380
Tel: 610-701-5810